

C.OC. # 119

11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244 East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 9405 S.W. Nimbus Avenue, Beaverton, OR 97008-7132

20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

(425) 420-9200 (509) 924-9200 F^X 420-9210 924-9290

(503) 906-9200 (541) 383-9310 FAX 382-7588

FAX 906-9210

CHAIN OF CUSTODY REPORT

Work Order #: M106083

CLIENT: Brishol					INVO	ICE TO): B	rist	0						TURN	NAROUNI	D REQUEST in Business I	ays*
REPORT TO: ANNE KA	and wetter			7.2	1												nic & Inorganic Analyses	
ADDRESS: Amelitha											10 7 5 4 3 2 1 <1							
															STD.		um Hydrocarbon Analyses	_
PHONE: 770-097	H FAX:	770	-09	75	P.O. N	UMBE	R:	2100	10				,		5	4	3 2 1 <1	_
PROJECT NAME: Amchi	itke					REC	QUESTI	ED ANA	LYSES			- 7			ST		Please Specify	
PROJECT NUMBER: 2109	0					1.										ОТН	ER	
SAMPLED BY: CRM/	5LC		Jah.												*Turnare	ound Requests	less than standard may incur Rush Ci	harges.
CLIENT SAMPLE	SAMPLING	DAG	BTEY											М	IATRIX	# OF		NCA WO
IDENTIFICATION	DATE/TIME	9	6											(V	W, S, O)	CONT.	COMMENTS	ID
1.01AMA905SL	6/27/01 0850	X	7			<i>a</i> 7									5	2	OIAMAIL OSSL	
2. OIAM A906SL	6/27/01 0855	Y	X										- 1		5	7	OLAM ALGOS	
3. OIAM AGOTSL	6/27/01 0900	X	X												S	Z	01AMA160752	
4. 01AM A908SL	6/27/01 090	5 ×	X												S	2_	OLAMAILOOSL	
5.01Am AG 09SL	6/27/01 0910	× ×	X		,							, ,	1		S	2	01AMA160951	_
6.01An A9 1052	6/27/01 09/9)	X	-											5	V V	ol Amalblos	
7.																		
8.												-	3.		300	,		
9.																		
10.						1						1 70						
11.												-						
12.																· ·	and the second second	
13.												2 2						
14.											,							
15.																		1
RELINQUISHED BY: John Chh						6/27	161	RECEI	VED BY:	Cra	13 B	Lock	le			161		6/27/01
\						13:	10		NAME:		where	9 13	svael '	e_	FIRM:	MAH	TIME	
RELINQUISHED BY:					DATE:				VED BY:			,					DATE	
PRINT NAME: ADDITIONAL REMARKS:	FIRM:				TIME:		<u> </u>	PRINT	NAME:						FIRM:		TIME	
A	-Blds ARFA	A	Id	A.	16-1			SAM	PLES	S r	enam	ed	`A9	i' to	0 7	416"	TEMP: 7.0°C PAGE	of)



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

6 December, 2001

Anne Kranawetter Bristol Environmental & Engineering 2000 W International Airport C#1 Anchorage, AK 99502-1116

RE: Amchitka

Enclosed are the results of analyses for samples received by the laboratory on 06/27/01 13:10. If you have any questions concerning this report, please feel free to contact me.

This report was recreated from a previously issued final report in order to provide an electronic copy. The final report used for these electronic copies may have been previously issued as an amended report due to client requested changes to sample names, etc. No data has changed since submission of the previously issued final, or amended, report.

Sincerely,

Stephen Wilson

Environmental Group Leader

1112

Work Orders included in this report:

M106083



Anchorage, AK 99502-1116

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-9223

425.420.9200 fax 425.420.9210 **Spokane** East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210 **Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering Project: Amchitka 2000 W International Airport C#1 Project Number: 21090

Reported: 10/25/01 01:22

Project Manager: Anne Kranawetter

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
01AMA1605SL	M106083-01	Soil	06/27/01 08:50	06/27/01 13:10
01AMA1606SL	M106083-02	Soil	06/27/01 08:55	06/27/01 13:10
01AMA1607SL	M106083-03	Soil	06/27/01 09:00	06/27/01 13:10
01AMA1608SL	M106083-04	Soil	06/27/01 09:05	06/27/01 13:10
01AMA1609SL	M106083-05	Soil	06/27/01 09:10	06/27/01 13:10
01AMA1610SL	M106083-06	Soil	06/27/01 09:15	06/27/01 13:10

C.O.C.# 119

North Creek Analytical - Mobile Lab



Anchorage, AK 99502-1116

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-9223

425.420.9200 fax 425.420.9210 **Spokane** East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290 **Portland** 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering Project: Amchitka 2000 W International Airport C#1 Project Number: 21090

Reported: 10/25/01 01:22

Project Manager: Anne Kranawetter

Diesel Hydrocarbons (C10-C25) per AK102 North Creek Analytical - Mobile Lab

		D							
Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA1605SL (M106083-01) Soil					Sampled: 06	/27/01 Rece	eived: 06/27/0	01	
Diesel Range Organics	ND	150	mg/kg dry	1	AK 102	06/28/01	06/28/01	0106098	
Surr: 1-Chlorooctadecane	98.5 %	50-150							
Surr: Triacontane	100 %	50-150							
01AMA1606SL (M106083-02) Soil					Sampled: 06	/27/01 Rece	eived: 06/27/0	01	
Diesel Range Organics	ND	150	mg/kg dry	1	AK 102	06/28/01	06/28/01	0106098	
Surr: 1-Chlorooctadecane	95.0 %	50-150							
Surr: Triacontane	93.5 %	50-150							
01AMA1607SL (M106083-03) Soil					Sampled: 06	/27/01 Rece	eived: 06/27/0	01	
Diesel Range Organics	ND	150	mg/kg dry	1	AK 102	06/28/01	06/28/01	0106098	
Surr: 1-Chlorooctadecane	92.2 %	50-150							
Surr: Triacontane	90.2 %	50-150							
01AMA1608SL (M106083-04) Soil					Sampled: 06	/27/01 Rece	eived: 06/27/0	01	
Diesel Range Organics	2150	150	mg/kg dry	1	AK 102	06/28/01	06/28/01	0106098	
Surr: 1-Chlorooctadecane	108 %	50-150							
Surr: Triacontane	96.9 %	50-150							
01AMA1609SL (M106083-05) Soil					Sampled: 06	/27/01 Rece	eived: 06/27/0	01	
Diesel Range Organics	ND	150	mg/kg dry	1	AK 102	06/28/01	06/28/01	0106098	
Surr: 1-Chlorooctadecane	101 %	50-150							
Surr: Triacontane	96.1 %	50-150							

North Creek Analytical - Mobile Lab



Anchorage, AK 99502-1116

Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-9223

Reported:

425.420.9200 fax 425.420.9210 **Spokane** East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering Project: Amchitka 2000 W International Airport C#1 Project Number: 21090

Project Manager: Anne Kranawetter 10/25/01 01:22

BTEX,MTBE and Naphthalene per EPA Method 8021B North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA1605SL (M106083-01) Soil					Sampled: 06	/27/01 Rece	eived: 06/27/	01	
Benzene	ND	0.0439	mg/kg dry	50	!1B BTEX/M	Π 06/28/01	06/28/01	0106100	
Toluene	ND	0.176	"	"	"	"	"	"	
Ethylbenzene	ND	0.176	"	"	"	"	"	"	
Xylenes (total)	ND	0.351	"	"	"	"	"	"	
Naphthalene	ND	1.76	"	"	"	"	"	"	A-01
Surr: 4-BFB	90.2 %	50-150							
01AMA1606SL (M106083-02) Soil					Sampled: 06	/27/01 Rece	eived: 06/27/	01	
Benzene	ND	0.0525	mg/kg dry	50	!1B BTEX/M	TI 06/28/01	06/28/01	0106100	
Toluene	ND	0.210	"	"	"	"	"	"	
Ethylbenzene	ND	0.210	"	"	"	"	"	"	
Xylenes (total)	ND	0.420	"	"	"	"	"	"	
Naphthalene	ND	2.10	"	"	"	"	"	"	A-01
Surr: 4-BFB	94.8 %	50-150							
01AMA1607SL (M106083-03) Soil					Sampled: 06	/27/01 Rece	eived: 06/27/	01	
Benzene	ND	0.0646	mg/kg dry	50	!1B BTEX/M	Π 06/28/01	06/28/01	0106100	
Toluene	ND	0.258	"	"	"	"	"	"	
Ethylbenzene	ND	0.258	"	"	"	"	"	"	
Xylenes (total)	ND	0.516	"	"	"	"	"	"	
Naphthalene	ND	2.58	"	"	"	"	"	"	A-01
Surr: 4-BFB	88.2 %	50-150							
01AMA1608SL (M106083-04) Soil					Sampled: 06	/27/01 Rece	eived: 06/27/	01	
Benzene	ND	0.0335	mg/kg dry	50	!1B BTEX/M	Π 06/28/01	06/28/01	0106100	_
Toluene	ND	0.134	"	"	"	"	"	"	
Ethylbenzene	ND	0.134	"	"	"	"	"	"	
Xylenes (total)	ND	0.268	"	"	"	"	"	"	
Naphthalene	ND	1.34	"	"	"	"	"	"	A-01
Surr: 4-BFB	72.2 %	50-150							

North Creek Analytical - Mobile Lab



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290 **Portland** 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210 **Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W International Airport C#1 Project: Amchitka Project Number: 21090

Reported:

Anchorage, AK 99502-1116

Project Manager: Anne Kranawetter

10/25/01 01:22

BTEX,MTBE and Naphthalene per EPA Method 8021B North Creek Analytical - Mobile Lab

Analyte	Result	Reporting Limit	Units	Dilution	n Method	Prepared	Analyzed	Batch	Notes
01AMA1609SL (M106083-05) Soil					Sampled: 06/2	27/01 Rece	eived: 06/27/	01	
Benzene	ND	0.0430	mg/kg dry	50	!1B BTEX/MT	1 06/28/01	06/28/01	0106100	
Toluene	ND	0.172	"	"	"	"	"	"	
Ethylbenzene	ND	0.172	"	"	"	"	"	"	
Xylenes (total)	ND	0.344	"	"	"	"	"	"	
Naphthalene	ND	1.72	"	"	"	"	"	"	A-01
Surr: 4-BFB	90.5 %	50-150							
01AMA1610SL (M106083-06) Soil					Sampled: 06/2	27/01 Rece	eived: 06/27/	01	
Benzene	ND	0.138	mg/kg dry	50	!1B BTEX/MT	1 06/28/01	06/28/01	0106100	
Toluene	ND	0.551	"	"	"	"	"	"	
Ethylbenzene	ND	0.551	"	"	"	"	"	"	
Xylenes (total)	ND	1.10	"	"	"	"	"	"	
Naphthalene	ND	5.51	"	"	"	"	"	"	A-01
Surr: 4-BFB	96.4 %	50-150							

North Creek Analytical - Mobile Lab



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776 509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210 **Bend** 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W International Airport C#1

Project: Amchitka
Project Number: 21090

Reported:

Anchorage, AK 99502-1116

Project Manager: Anne Kranawetter

10/25/01 01:22

Physical Parameters per APHA/ASTM/EPA Methods North Creek Analytical - Mobile Lab

A and the	D Is	Reporting	D'I 41	Made	D 1	A 1 . 1	Decil	NT
Analyte	Result	Limit Units	Dilution	Method	Prepared	Analyzed	Batch	Notes
01AMA1605SL (M106083-01) Soil				Sampled: 06/2	7/01 Rece	ived: 06/27/0	01	
% Solids	86.5	0.0100 % by Weight	1	Gravimetric	06/28/01	06/28/01	0106099	
01AMA1606SL (M106083-02) Soil				Sampled: 06/2	7/01 Rece	ived: 06/27/0	01	
% Solids	90.7	0.0100 % by Weight	1	Gravimetric	06/28/01	06/28/01	0106099	
01AMA1607SL (M106083-03) Soil				Sampled: 06/2	7/01 Rece	ived: 06/27/0	01	
% Solids	89.9	0.0100 % by Weight	1	Gravimetric	06/28/01	06/28/01	0106099	
01AMA1608SL (M106083-04) Soil				Sampled: 06/2	7/01 Rece	ived: 06/27/0	01	
% Solids	80.3	0.0100 % by Weight	1	Gravimetric	06/28/01	06/28/01	0106099	
01AMA1609SL (M106083-05) Soil				Sampled: 06/2	7/01 Rece	ived: 06/27/0	01	
% Solids	89.0	0.0100 % by Weight	1	Gravimetric	06/28/01	06/28/01	0106099	
01AMA1610SL (M106083-06) Soil				Sampled: 06/2	7/01 Rece	ived: 06/27/0	01	
% Solids	100	0.0100 % by Weight	1	Gravimetric	06/28/01	06/28/01	0106099	

North Creek Analytical - Mobile Lab



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W International Airport C#1

Project: Amchitka
Project Number: 21090

Reported: 10/25/01 01:22

Anchorage, AK 99502-1116

Project Manager: Anne Kranawetter

Diesel Hydrocarbons (C10-C25) per AK102 - Quality Control

North Creek Analytical - Mobile Lab

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 0106098 - 3545 ASE										

Blank (0106098-BLK1)			Prepared	d & Analy	zed: 06/2	28/01		
Diesel Range Organics	ND	150 mg/kg wet						
Surr: 1-Chlorooctadecane	22.3	"	23.4		95.3	50-150		
Surr: Triacontane	21.6	"	23.4		92.3	50-150		
LCS (0106098-BS1)			Prepared	d & Analy	zed: 06/2	28/01		
Diesel Range Organics	1310	150 mg/kg wet	1250		105	75-125		
Surr: 1-Chlorooctadecane	28.4	"	23.4		121	50-150		
Surr: Triacontane	22.8	"	23.4		97.4	50-150		
LCS Dup (0106098-BSD1)			Prepared	d & Analy	zed: 06/2	8/01		
Diesel Range Organics	1260	150 mg/kg wet	1250		101	75-125	3.89	20
Surr: 1-Chlorooctadecane	25.0	"	23.4		107	50-150		
Surr: Triacontane	22.0	"	23.4		94.0	50-150		
Matrix Spike (0106098-MS1)	Sour	ce: M106083-01	Prepared	d & Analy	zed: 06/2	28/01		
Diesel Range Organics	1480	150 mg/kg dry	1440	ND	103	60-140	•	
Surr: 1-Chlorooctadecane	29.9	"	26.9		111	50-150		
Surr: Triacontane	27.4	"	26.9		102	50-150		

North Creek Analytical - Mobile Lab



425.420.9200 fax 425.420.9210

Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290

Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132 503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711 541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering 2000 W International Airport C#1

Project: Amchitka Project Number: 21090

Reported:

Anchorage, AK 99502-1116

Project Manager: Anne Kranawetter

10/25/01 01:22

BTEX,MTBE and Naphthalene per EPA Method 8021B - Quality Control

North Creek Analytical - Mobile Lab

				G '1	_					
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 0106100 - MeOH Extraction	on						
Blank (0106100-BLK1)				Prepared &	Analyzed: 06/2	8/01	
Benzene	ND	0.0250 m	ıg/kg wet				
Toluene	ND	0.100	"				
Ethylbenzene	ND	0.100	"				
Xylenes (total)	ND	0.200	"				
Naphthalene	ND	1.00	"				
Surr: 4-BFB	2.50		"	2.50	100	50-150	
LCS (0106100-BS1)				Prepared &	Analyzed: 06/2	8/01	
Benzene	2.09	0.0250 m	g/kg wet	2.50	83.6	69-138	
Toluene	2.29	0.100	"	2.50	91.6	53-151	
Ethylbenzene	2.62	0.100	"	2.50	105	61-141	
Xylenes (total)	7.34	0.200	"	7.50	97.9	62-141	
Naphthalene	3.15	1.00	"	2.50	126	65-135	
Surr: 4-BFB	2.65		"	2.50	106	50-150	

North Creek Analytical - Mobile Lab



425.420.9200 fax 425.420.9210 **Spokane** East 11115 Montgomery, Suite B, Spokane, WA 99206-4776

509.924.9200 fax 509.924.9290 **Portland** 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132

503.906.9200 fax 503.906.9210

Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711

541.383.9310 fax 541.382.7588

Bristol Environmental & Engineering Project: Amchitka 2000 W International Airport C#1 Project Number: 21090

Anchorage, AK 99502-1116 Project Manager: Anne Kranawetter

Reported: 10/25/01 01:22

Notes and Definitions

A-01 Acceptance criteria for continuing calibration verification standard was exceeded high. Sample results are non-detect and are not

affected. DoD QSM Draft 5.9.4.2.E.1

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis. MRLs are adjusted if %Solids are less than 50%.

wet Sample results reported on a wet weight basis (as received)

RPD Relative Percent Difference

North Creek Analytical - Mobile Lab

Items for Project Manager Review

LabNumber	Analysis	Analyte	Exception
			Report recreated from: \\sisters\elmnt\Report\M106083 FINAL 10 25 01 0122.mdb
			Default Report (not modified)
M106083-01	8021B BTEX/MTBE/N	Naphthalene	A-01
M106083-02	8021B BTEX/MTBE/N	Naphthalene	A-01
M106083-03	8021B BTEX/MTBE/N	Naphthalene	A-01
M106083-04	8021B BTEX/MTBE/N	Naphthalene	A-01
M106083-05	8021B BTEX/MTBE/N	Naphthalene	A-01
M106083-06	8021B BTEX/MTBE/N	Naphthalene	A-01